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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,230	06/29/2005	Jurgen Gerhartz	442-242 PCT/US	4555

7590 05/03/2006
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EXAMINER

SCHEUERMANN, DAVID W

ART UNIT	PAPER NUMBER
2834	

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/541,230	Applicant(s) GERHARTZ ET AL.	
	Examiner David W. Scheuermann	Art Unit 2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 7, 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, "the oval cross section," claim 1; "output put drive part which is designed in the form of a piston of a piston spool valve," claim 9; "the permanent magnet arrangement in the form of a gripper tongs connected with the output drive part," claim 10; and "wherein several yoke arrangements are arranged in tandem in the stroke direction," claim 11, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The feature connected with an output drive part in claim 10 is already specified as a piston spool valve in claim 9. The examiner suggests making claim 10 dependent on claim 1 to avoid this indefinite confusion.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Gründl et al., W0 02/08579 A as translated by US 6755161 B2.

Gründl et al., W0 02/08579 A as translated by US 6755161 B2 show:

An electromagnetic drive device comprising a drive part arranged to be reciprocated in the stroke direction and possessing a circular or oval cross section, said drive part having a permanent magnet arrangement magnetized athwart the stroke direction, such arrangement possessing at least one pair of oppositely magnetized magnet portions arranged sequentially in the stroke direction and being arranged in the intermediate space of a yoke arrangement with pole pieces provided in the direction of magnetization on opposite sides of the drive part, characterized in that the yoke arrangement possesses two pairs of pole pieces delimiting the intermediate space and which are joined together by two yoke regions extending essentially in parallelism to the stroke direction, at least one of the yoke regions being surrounded by a coil able to conduct current for performing a stroke and each pair of pole pieces is provided with a pair of oppositely magnetized magnet portions of the permanent magnet arrangement.

Re claim 2, note the two pole pieces as shown in figures 2a and 2b.

Re claim 3 and 4, note spacer 44, formed of aluminum a non-magnetizable material (see column 11, lines 22-23), which separates the magnets as shown in figure 3.

Re claim 6, note the tube shape of actuator rod 14.

Re claim 11, note the tandem yoke arrangements shown in figure 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Gründl et al., W0 02/08579 A as translated by US 6755161 B2. Gründl et al., W0 02/08579 A as translated by US 6755161 B2 disclose the invention substantially as claimed as set forth in the rejection of claim 1, supra. Gründl et al., W0 02/08579 A as translated by US 6755161 B2 does not expressly disclose, "...wherein the width of the pole pieces and/or the diameter of the at least one coil is essentially equal to the diameter of the drive part." The courts have established via, *in re Aller*, 105 USPQ 238 (CCPA 1955) that,

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"...even though applicant's modification results in great improvement and utility over prior art, it may still not be patentable if modification was within capabilities of one skilled in art; more particularly, where general conditions of claim are disclosed in prior art, it is not inventive to discover optimum or workable ranges by routine experimentation. Furthermore, a change in size or shape is generally recognized as being within the level of ordinary skill in the art, see *In re Rose*, 105 USPQ 237 (CCPA 1955). Thus a change in size and shape would not patentably define over Gründl et al., W0 02/08579 A as translated by US 6755161 B2. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to make the width of the pole pieces and/or the diameter of the at least one coil is essentially equal to the diameter of the drive part of the device of Gründl et al., W0 02/08579 A as translated by US 6755161 B2. One of ordinary skill in the art would have been motivated to do this to optimize performance.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gründl et al., W0 02/08579 A as translated by US 6755161 B2 in view of Yamamoto et al., JP 2002130514 A. Gründl et al., W0 02/08579 A as translated by US 6755161 B2 discloses the invention substantially as claimed as set forth in the rejection of claim 1, supra. Gründl et al., W0 02/08579 A as translated by US 6755161 B2 does not expressly disclose, "...wherein the drive part is connected with an output drive part which is designed in the form of a piston of a piston spool valve." Yamamoto et al., JP 2002130514 A disclose the combination of a piston spool valve and solenoid is known in the art. At the time the invention was made, it would have been obvious to a person

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of ordinary skill in the art to use the superior solenoid of Gründl et al., W0 02/08579 A as translated by US 6755161 B2 to drive the piston spool valve of Yamamoto et al., JP 2002130514 A. One of ordinary skill in the art would have been motivated to do this to enhance performance.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gründl et al., W0 02/08579 A as translated by US 6755161 B2 in view of Buschor, US 4555216. Gründl et al., W0 02/08579 A as translated by US 6755161 B2 disclose the invention substantially as claimed as set forth in the rejection of claim 1, supra. Gründl et al., W0 02/08579 A as translated by US 6755161 B2 do not expressly disclose, "...wherein the drive part is designed in the form of a tube provided with the permanent magnet arrangement in the form of a gripper tongs connected with the output drive part." Buschor, US 4555216 discloses the combination of a gripper (26 and 28, see figures 3 and 4) and solenoid (30) is known in the art. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the superior solenoid of Gründl et al., W0 02/08579 A as translated by US 6755161 B2 to drive the gripper of Buschor, US 4555216. One of ordinary skill in the art would have been motivated to do this to enhance performance.

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Allowable Subject Matter

Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

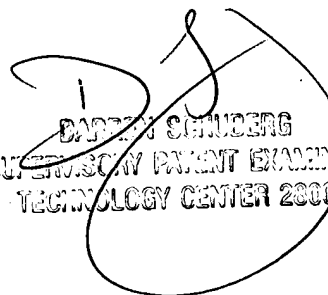
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David W. Scheuermann whose telephone number is (571) 272-2035. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached at (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



dws
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